

# Work Order ID 100826

**\*100826\***

Page 1

May 1, 2013 7:31:00 AM

Item ID: D3685-041

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: BIPOD MOUNT ASSEMBLY

Start Date: 4/30/13 Start Qty: ~~2.00~~ **\*2\***

Cust Item ID:

Required Date: 4/30/13 Req'd Qty: 2.00 **\*2\***

Customer:

Reference:

Approvals: Process Plan:

*M*

Date: *13051*

Tooling:

Date:

Run Start **\*NR1\***

OC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***

Work Center ID	Operation Description	Set Up/Run Hours	Plan Code	Accept Qty	Reject Qty	Reject Number	sp. Stamp
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Draw Nbr

Revision Nbr

D3685

E

100

Pick Kit

0.00

**\*100\***

Packaging

Memo

0.00

Packaging

110

0.00

**\*110\***

Small Fab

Small Fab

Memo

0.00

Small Fab

1-Align the pilot holes in mating parts. Drill out each hole using pilot drill and ream each hole using a step reamer. Clean and deburr all holes prior to assembly as per dwg. (SEE NOTE 8)

\*\*\*AFTER FINISH DRILLIN AND REAMING PARTS MUST STAY TOGETHER. DO NOT MIXE THEM UP\*\*\*

2-Assemble D3684-049/-047 & D3687-3 Using Hysol EA934NA or MAGNOBOND 6398 adhesive between mating surfaces as per Dwg D3684

*FF*  
*13-09-17*

*FF*  
*13-09-17*

NCR: Yes / No

## WORK ORDER NON-CONFORMANCE / UPDATE

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____  Part No. _____  NCR No. _____	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>  <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data									
Equip/Tooling									
Operator									
Material									
Setup									
Other									
Process									
Supplier									
Training									
Unapproved									

### FAULT CATEGORY

<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions	<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge  <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled  <input type="checkbox"/> Other
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# Work Order ID 100826

May 1, 2013 7:31:00 AM

**\*100826\***

Page 2

Item ID: D3685-041

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: BIPOD MOUNT ASSEMBLY

Start Date: 4/30/13 Start Qty: 2.00

**\*2\***

Cust Item ID:

Required Date: 4/30/13 Req'd Qty: 2.00

**\*2\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***

Sequence ID/  
Work Center ID

Description

Set Up/  
Run Hours

Tool ID Plan Accept Reject Reject Resp.  
Qty Qty Number Stamp

120

QC5- Inspect part completeness to step on W/O

0.00

DAS

27

9-89

**\*120\***

QC

Memo

0.00

Quality Control

130

Identify as per dwg & Stock Location: PPP

0.00

**\*130\***

Packaging

Memo

0.00

Packaging

101578

IX (DAS 28) 13-09-18

140

QC21- Final Inspection - Work Order Release

0.00

**\*140\***

QC

Memo

0.00

Quality Control

MLJ 13-09-20  
MF  
13-9-19

NCR: Yes / No

**WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____  Part No. _____  NCR No. _____				<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		<b>AGAINST DEPARTMENT/PROCESS</b>  <div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/>            Machining <input type="checkbox"/>            Thermoforming <input type="checkbox"/>            Large Fab <input type="checkbox"/> </div> <div>           Crosstube <input type="checkbox"/>            Small Fab <input type="checkbox"/>            Finishing <input type="checkbox"/>            Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/>            Prod. Eng. Coord. <input type="checkbox"/>            Rec/Store/Packaging <input type="checkbox"/>            Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/>            Quality <input type="checkbox"/>            Other <input type="checkbox"/> </div> </div>					
<b>Root Cause</b>	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											

FAULT CATEGORY			
<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions	<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge  <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled  <input type="checkbox"/> Other

# Picklist Print

May 1, 2013 7:31:00 AM

Page 1

Work Order ID: 100826

Parent Item: D3685-041

Parent Item Name: BIPOD MOUNT ASSEMBLY

Start Date: 4/30/13

Required Date: 4/30/13

Start Qty: 2.00

Required Qty: 2.00

## Comments:


IPP Rev:A new issue 08-02-12 DD verified by:LL

IPP Rev:B As per Rev B 09-01-07 JLM Verified By:EC

03-16 JLM VERIFIED BY:EC

IPP REV:C AS PER REV D 10-

IPP Rev:C Added sealant note as per Rev C 09-01-20 JLM Verified By:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
 D3684-047 BIPOD MOUNT ASSEMBLY		Manufactured	No		98349		Each	0.0000		2		FF 13-09-17	
					97522					1		FF 13-09-17	
D3687-3 Mount		Manufactured	No				Each	3.0000		2		FF 13-09-17	
				<u>Location</u>		<u>Loc Qty</u>	<u>Loc Code</u>						
				GA		3							
					98552	3							
HL32PB8-14 Pin		Purchased	No				Each	275.0000		8		FF 13-09-17	
				<u>Location</u>		<u>Loc Qty</u>	<u>Loc Code</u>						
				ST284		275							
				123916		25							
				125436		250							
HL86-8 Collar		Purchased	No				Each	228.0000		8		FF 13-09-17	
				<u>Location</u>		<u>Loc Qty</u>	<u>Loc Code</u>						
				ST284		228							
				124724		128							
				125436		100							

NCR: Yes / No

**WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

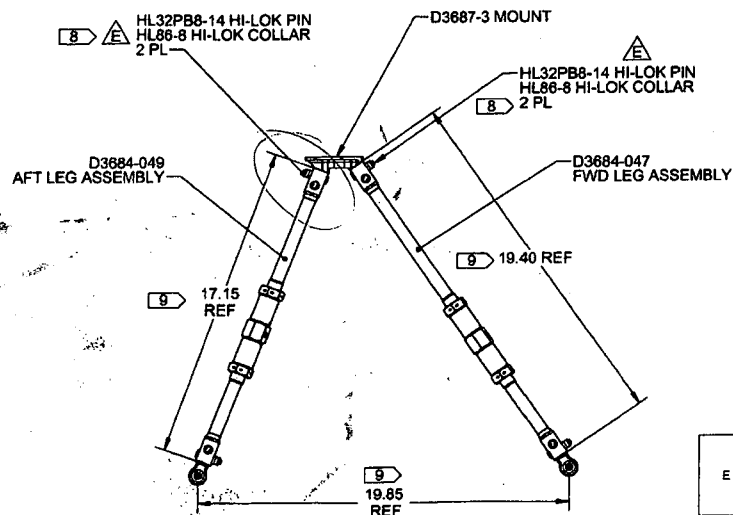
Work Order: _____  Part No: _____  NCR No: _____	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>  <table style="width:100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
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Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data									
Equip/Tooling									
Operator									
Material									
Setup									
Other									
Process									
Supplier									
Training									
Unapproved									

**FAULT CATEGORY**

Landing Gear	General	Other
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Grain
<input type="checkbox"/> Centre Not Concentric to O/S	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Hardware
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damaged	<input type="checkbox"/> Inspection Incomplete
<input type="checkbox"/> Crushed/Crimped	<input type="checkbox"/> Burrs	<input type="checkbox"/> Instructions Incomplete/Unclear
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Maintenance
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Countersink	<input type="checkbox"/> Mislabeled
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Misread
<input type="checkbox"/> Ripples in Bend	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Offset
<input type="checkbox"/> Torque Waves in Extrusion	<input type="checkbox"/> Drawing	<input type="checkbox"/> Out of Calibration
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Sequence
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Folio	<input type="checkbox"/> Outside Dimensions
		<input type="checkbox"/> Ovalized
		<input type="checkbox"/> Over/Under tolerance
		<input type="checkbox"/> Part Incorrect
		<input type="checkbox"/> Part Lost/Missing
		<input type="checkbox"/> Part Moved
		<input type="checkbox"/> Positioned Wrong
		<input type="checkbox"/> Power Loss/Surge
		<input type="checkbox"/> Pressure/Forced
		<input type="checkbox"/> Temperature/Cure
		<input type="checkbox"/> Weld
		<input type="checkbox"/> Wrong Stock Pulled
		<input type="checkbox"/> Other

ITEM	QTY	PART NUMBER	DESCRIPTION
1	X	D3685-041	BIPOD MOUNT ASSEMBLY
2	1	D3687-3	MOUNT
3	1	D3684-047	FWD LEG ASSEMBLY
4	1	D3684-049	AFT LEG ASSEMBLY
5	4	HL32PB8-14	HI-LOK PIN
7	4	HL86-8	HI-LOK COLLAR



**D3685-041 BIPOD MOUNT ASSEMBLY**

**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART ASSEMBLY P/N D3685-041 PER DART QSI 044 6.1 (FINE POINT PAINT MARKER)
- 7) WEIGHT: 6.68 lbs
- 8) ALIGN THE PILOT HOLES IN MATING PARTS. DRILL OUT EACH HOLE USING A P/N 13-420 PILOTED DRILL (0.2314 DIA/0.2158 PILOT). REAM EACH HOLE USING A P/N 44-300 STEP REAMER (0.247 DIA/0.2314 PILOT). CLEAN AND DEBURR ALL HOLES PRIOR TO ASSEMBLY. ASSEMBLE D3684-047/-049 WITH D3687-3 USING HYSOL EA934NA OR MAGNOBOND 8368 ADHESIVE BETWEEN MATING SURFACES.
- 9) DIMENSIONS SHOWN ARE WHEN D3688-1/-3 & D3691-041 STUDS ARE FULLY THREADED INTO D3689-1 SLEEVES

E	REMOVE AN3C-12A BOLT, D3692-1 SPACER AND MS21043-3 NUT. REPLACE WITH HL32PB8-14 HI-LOK PIN, HL86-8 HI-LOK COLLAR (ZN C3-1, ZN C5-1). RE-FORMAT NOTES SECTION AS PER QSI 043. CHANGE ASSEMBLY ADHESIVES. NOTES (ZN A8-1). CHANGE BOM TABLE TO REFLECT NEW ASSEMBLY STRUCTURE. (ZN D8-1) REF NCR 12-2074	DB	12.12.05
D	17.15 WAS 17.27 (ZN B6-1); 19.40 WAS 19.52 (ZN B4-1); 19.85 WAS 20.24 (ZN B5-1)	RF	10.03.03
C	NOW ASSEMBLED USING SEALANT (ZN A8-1, C4-1)	RF	08.12.15
B	19.52 WAS 19.95 (ZN B4-1); REFORMATTED TO CURRENT DWG STANDARDS	RF	08.11.24
A	NEW ISSUE	RF	08.05.22
REV.	DESCRIPTION	BY	DATE
DESIGN	RF		
DRAWN	DB		
CHECKED	MB		
MFG. APPR.	JLM		
APPROVED			
DE APPR.			
DATE	12.12.05		

**DART AEROSPACE LTD**  
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. **D3685** REV. E  
SHEET 1 OF 1  
TITLE **BIPOD MOUNT ASSEMBLY** SCALE NTS

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